

IN THE CLAIMS:

1. (Currently Amended) A process for the laser machining of a workpiece[[s]], the process comprising:

sending a laser beam from a laser source via a guide means to a laser tool at a multiaxial hand of at least one manipulator and is directed towards the workpiece, the laser tool having a focal distance;

guiding, with said manipulator, a remote said laser tool in a displacing motion relative to said workpiece with a focal distance at a contact-free distance floatingly above the workpiece along a machining path (30) and;

deflecting said laser beam, essentially by means of a motion of said hand, to provide a deflection motion about one or more axes of the multiaxial hand at axes by variable deflection angles [[ $\alpha$ ]]; and

controlling said laser source, whose power is variable, is controlled by controlling laser beam power of said laser source to control power of said laser beam at the laser tool as a function of the motions of said laser beam motion relative to the workpiece.

2. (Currently Amended) A process in accordance with claim 1, wherein said manipulator guides said hand in a displacing motion relative to said workpiece, wherein said beam deflection motion of said hand axes is superimposed to said displacing motion.

3. (Currently Amended) A process in accordance with claim [[1]] 2, wherein said

manipulator performs ~~an~~essentially a continuous displacing motion, wherein said superimposed beam deflection motion is directed at least partially against said displacing motion.

4. (Currently Amended) A process in accordance with claim [[1]] 2, wherein said laser source and said manipulator are acted on by a common control.

5. (Currently Amended) A process in accordance with claim 1, wherein further comprising:

providing one or more programs and at least one technological data bank, with which wherein said one or more programs and said data bank are used for providing said displacing motion of said motions to be carried out by said manipulator and controlling said laser source laser process parameters are determined and carried out automatically on a basis of input workpiece data[[,]] ; and

10 providing a computer for running said one or more programs as part of a control and providing a control memory for storing said at least one technological data bank are stored and run in a computer and in at least one said memory of said control.

6. (Currently Amended) A process in accordance with claim [1] 2, wherein said laser beam power of said laser source and said displacing motion and said beam deflection motion[[s]] to be performed by said manipulator are determined and controlled according to

a section energy to be introduced into said workpiece.

7. (Currently Amended) A process in accordance with claim [[1]] 5, wherein said workpiece data are input by ~~said~~ an operator into said control on site via an input unit.

8. (Currently Amended) A process in accordance with claim [[1]] 5, wherein one or more tools for said workpiece are controlled by said control.

9. (Previously Presented) A process in accordance with claim 1, wherein a laser tool with a switchable or adjustable focal distance is used.

10. (Currently Amended) A laser device for laser machining, including laser welding, of ~~vehicle bodies and body parts~~ workpiece a vehicle body workpiece and a body parts workpiece, the device comprising:

a manipulator;

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a laser source;

a laser tool with a focal distance;

a laser guide means for guiding laser light from the laser source to the laser tool,  
wherein the laser source is which can be connected via [[a]] said guide means to [[a]] said laser  
tool at a multiaxial hand of said manipulator, wherein said manipulator holds a remote said  
10 laser tool with a focal distance and guides same floatingly at a contact-free distance above said

the workpiece along a machining path; wherein :

a control for controlling said manipulator can be controlled in terms of said for deflecting said laser beam motion of hand about hand axes such that said laser beam can be deflected has a deflection motion by variable deflection angles  $[[\alpha]]$ , and wherein said controlling power of said laser source to vary power at said laser tool as a function of laser beam motion relative to the workpiece can be controlled variably and as a function of motions of said laser beam.

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11. (Currently Amended) A laser device in accordance with claim 10, wherein said manipulator guides said hand in a displacing motion relative to said workpiece, wherein said laser beam deflecting motion of said hand axes is superimposed to said displacing motion to provide a superimposed beam deflecting motion.

12. (Currently Amended) A laser device in accordance with claim [[10]] 11, wherein said manipulator performs an essentially a continuous displacing motion, wherein said superimposed beam deflecting motion is directed at least partially opposite said displacing motion.

13. (Currently Amended) A laser device in accordance with claim [[10]] 11, wherein said control comprises a common control, common to said laser source and said manipulator have a common control wherein said common control has a input unit for inputting workpiece

data by an operator on site.

14. (Currently Amended) A laser device in accordance with claim 13 , wherein said  
common control has at least one said computer and at least one memory with one or more  
programs and with at least one technology data bank, with which program and data bank said  
~~motions to be performed by said manipulator~~ displacing motion and said deflection motion and  
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said laser process parameters can be automatically determined and carried out on ~~said~~ a basis  
of input workpiece data.

15. (Currently Amended) A laser device in accordance with claim 10, wherein said  
controlling power of said laser source and said displacing motion and said beam deflecting  
motion[[s]] to be performed by said manipulator ~~can be~~ is determined and controlled according  
to section energies to be introduced into ~~said~~ the workpiece.

16. (Canceled)

17. (Currently Amended) A laser device in accordance with claim [[13]] 14, wherein  
said input unit has a keyboard and/or a drive for said portable data storage media and/or at least  
one interface for a data line.

18. (Currently Amended) A laser device in accordance with claim 13, wherein said

~~laser has further comprising:~~ one or more tools for ~~said the~~ workpiece, which are connected to said control, ~~said one or more tools including clamping tools and/or a conveying means for conveying the workpiece.~~

19. (Cancelled).

20. (Currently Amended) A laser device in accordance with claim 10, wherein said guide means has a modular design and has a plurality of optic conductor sections that can be connected to a conductor couplings.

21. (Canceled)

22. (Previously Presented) A laser device in accordance with claim 10, wherein said laser source is designed as a fiber laser, disk laser or diode-pumped Nd-YAG laser.

23. (Currently Amended) A laser device in accordance with claim 10, wherein said laser tool has a focal distance that ~~can be~~ is switched or adjusted.

24. (Previously Presented) A laser device in accordance with claim 10, wherein said laser tool has a focal distance greater than 300 mm.

25. (Currently Amended) A laser device in accordance with claim 13, further comprising additional manipulators each with a laser tool, to provide a plurality of said manipulators with said laser tools and to provide a plurality of laser tools, wherein said laser source is a common laser source can be that is switched by said control to said different laser tools.

26. (Currently Amended) A laser device in accordance with claim 10, wherein said manipulator is designed as a multiaxial industrial robot comprising a six-axis articulated arm robot with said axes and said hand has three said rotatory hand axes.

27. (Canceled)

28. (New) A process in accordance with claim 4, wherein:  
the deflection motion varies an angle of incidence of the laser beam on the workpiece;  
and  
said step of controlling said laser source includes controlling laser power of the laser beam emitted at the laser tool, with the common controller, as a function of said displacing motion and said deflection motion and as a function of said angle of incidence of the laser beam on the workpiece.

29. (New) A laser device in accordance with claim 11, wherein:

the deflection motion varies an angle of incidence of the laser beam on the workpiece; and

said control controls said laser source including controlling laser power of the laser beam emitted at the laser tool as a function of said displacing motion and said deflection motion and as a function of said angle of incidence of the laser beam on the workpiece.

30. (New) A process for laser machining of a vehicle chassis workpiece or chassis parts workpiece, the process comprising the steps of:

providing a multi-axial manipulator with a multi-axis hand;  
providing a variable power laser source;  
providing a multi-axial manipulator and variable power laser source common control;  
providing a laser tool connected to the multi-axis hand, the laser tool having a focal distance;

providing a laser guiding device;  
guiding a laser beam from the laser source via the guiding device to the laser tool connected to the multi-axis hand;

guiding the multi-axis hand to guide the laser tool over the workpiece at a contactless spacing along a machining track, with the manipulator guiding the multi-axis hand in a displacing motion relative to the workpiece;

deflecting the laser beam by variable deflection angles with a deflection motion to vary an angle of incidence of the laser beam on the workpiece via a movement of the laser tool

about one or more hand axes of the multi-axis hand;

controlling laser power of the laser beam emitted at the laser tool, with the common controller, as a function of said displacing motion and said deflection motion and of said angle of incidence of the laser beam on the workpiece.

31. (New) A laser device for laser machining of a vehicle chassis workpiece or chassis parts workpiece, the laser device comprising:

a multi-axial manipulator with a multi-axis hand;

a variable power laser source;

a laser tool connected to the multi-axis hand, the laser tool having a focal distance;

a laser guiding device connected between said variable power laser source and said laser tool for guiding a laser beam from said laser source to said laser tool;

a multi-axial manipulator and variable power laser source common control for controlling said manipulator for guiding the multi-axis hand to guide the laser tool over the workpiece at a contactless spacing along a machining track, with the manipulator guiding the multi-axis hand in a displacing motion relative to the workpiece, for deflecting the laser beam by variable deflection angles with a deflection motion to vary an angle of incidence of the laser beam on the workpiece via a movement of the laser tool about one or more hand axes of the multi-axis hand and for controlling laser power of the laser beam emitted at the laser tool, with the common controller, as a function of said displacing motion and said deflection motion and of said angle of incidence of the laser beam on the workpiece.